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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/749,665	12/30/2003	Qinghua Li	42P17465	9750
8791	7590	07/26/2005	EXAMINER	
BLAKELY SOKOLOFF TAYLOR & ZAFMAN 12400 WILSHIRE BOULEVARD SEVENTH FLOOR LOS ANGELES, CA 90025-1030			TRAN, THUY V	
			ART UNIT	PAPER NUMBER
			2821	

DATE MAILED: 07/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/749,665	<b>Applicant(s)</b> LI ET AL.	
	<b>Examiner</b> Thuy V. Tran	<b>Art Unit</b> 2821	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 December 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 6-22 is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to:
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

This is a response to the Applicants' filing on 12/30/2003. In virtue of this filing, claims 1-22 are currently presented in the instant application.

#### ***Inventorship***

1. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

#### ***Drawings***

2. The drawings submitted on 12/30/2003 are accepted.

#### ***Claim Objections/ Minor Informality***

3. Claim 6 is objected to because of the following informalities:

Line 3, "the" (second occurrence) should be changed to --a--.

Appropriate correction is required.

#### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

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The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

5. Claims 1-3 are rejected under 35 U.S.C. 102(e) as being anticipated by Ishidoshiro (Pub. No.: US 2004/0077361 A1).

With respect to claim 1, Ishidoshiro discloses, in Figs. 1 and 2, a system comprising (1) a mobile station [20a], and (2) an access point [10a] (see Fig. 2) that includes a first [115a] and second [115b] sectored antenna combined to form an omni-directional radiation pattern (since sectored antennas have a radiation pattern similar to a slice or sector of a pie chart).

With respect to claim 2, Ishidoshiro discloses that the first sectored antenna transmits a first tone (or signal) and the second sectored antenna transmits a second tone (or signal) differing from the first tone (since these antennas are connected to the WLAN to transmit information/data/signal/tone to and from the wireless clients by radio wave; see paragraph [0030], line 8-11).

With respect to claim 3, Ishidoshiro discloses that the first sectored antenna transmits a first signal and the second sectored antenna transmits the first signal delayed in phase from the first signal (see paragraph [0031], lines 16-21).

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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7. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ishidoshiro (Pub. No.: US 2004/0077361 A1) in view of Louhi (U.S. Patent No. 6,707,425).

With respect to claim 4, Ishidoshiro discloses all of the claimed subject matter, as expressly recited in claim 1, except for an additional omni-directional antenna.

Louhi discloses, in Fig. 1, an access point comprising an omni-directional antenna [112] (see col. 5, lines 46-47).

It would have been obvious to one of ordinary skills in the art at the time of the invention to modify the system of Ishidoshiro by replacing the third sectored antenna (which is [115c] shown in Fig. 2) of Ishidoshiro with an omni-antenna to enhance the radiation pattern since such a configuration of the omni-antenna for the stated purpose has been well known in the art as evidenced by the teachings of Louhi (see col. 5, lines 51-53).

8. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ishidoshiro (Pub. No.: US 2004/0077361 A1) in view of Ueda (U.S. Patent No. 5,548,807):

With respect to claim 5, Ishidoshiro discloses all of the claimed subject matter, as expressly recited in claim 1, except for specifying that the mobile station includes first and second sectored antennas.

Ueda discloses, in Fig. 4, a mobile communication system comprising a mobile station configured with sectored antennas [208<sub>1</sub>, 213<sub>1</sub>].

It would have been obvious to one of ordinary skills in the art at the time of the invention to implement the mobile station of the system of Ishidoshiro by arranging in it a first and second sectored antennas to obtain effective communications with its access point and to ensure an accurate carrier/interference wave ratio since such a configuration of the sectored antennas in the

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mobile station for the stated purpose has been well known in the art as evidenced by the teachings of Ueda (see col. 2, lines 45-46).

***Allowable Subject Matter***

9. Claims 6-22 are allowed.

10. The following is a statement of reasons for the indication of allowable subject matter:

Prior art fails to disclose or fairly suggest:

- A communications network where the first omni-directional antenna is formed by a combination of multiple sectored antennas, in combination with the remaining claimed limitations as called for in independent claim 6 (claims 7-15 are allowed since they are dependent on claim 6); and
- A receiver system of an access point where at least one of the two omni-directional antenna is a combination of two complimentary placed sectored antenna, in combination with the remaining claimed limitations as called for in independent claim 16 (claims 17-22 are allowed since they are dependent on claim 16).

***Citation of relevant prior art***

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Prior art Okawa et al. (Pub. No.: US 2004/0038713 A1) discloses a base station.

Prior art Simmonds et al. (Pub. No.: US 2004/0023665 A1) discloses a method and apparatus for alternative mode monitoring in a communications system.

Prior art Tehrani et al. (Pub. No.: US 2002/0164963 A1) discloses a method and system for providing antenna diversity.

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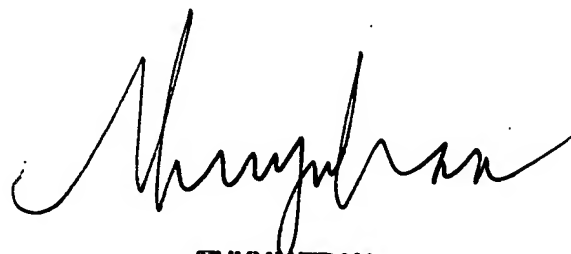
***Inquiry***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thuy V. Tran whose telephone number is (571) 272-1828. The examiner can normally be reached on M-F (8:00 AM -5:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don Wong can be reached on (571) 272-1834. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

07/23/2005



**THUY V. TRAN  
PRIMARY EXAMINER**